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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,371	12/20/2000	Dan W. Urry	BERL-025/01US	2171

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EXAMINER

RUSSEL, JEFFREY E

ART UNIT	PAPER NUMBER
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1654

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/746,371

Applicant(s)

URRY, DAN W.

Examiner

Jeffrey E. Russel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-52 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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- I. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a method of reducing acoustical noise, sonar cross-section, or radar cross-section using a polymer comprising peptides and β -turns, classified in class 181, subclass 256.
 - II. Claims 17-22, drawn to a method of reducing acoustical noise, sonar cross-section, or radar cross-section using an amphiphilic petroleum-based polymer, classified in class 181, subclass 256.
 - III. Claims 23 and 24, drawn to a method for measuring the sound absorption capabilities of a polymer comprising peptides and β -turns, classified in class 436, subclass 86.
 - IV. Claims 25-27, drawn to a method of measuring the microwave or radar absorption capabilities of a polymer comprising peptides and β -turns, classified in class 436, subclass 86.
 - V. Claims 28-48, drawn to a method of designing polymers comprising peptides and β -turns, classified in class 530, subclass 333.
 - VI. Claims 49-52, drawn to a polymer comprising peptides, and a kit comprising a polymer comprising peptides and β -turns, and a material to form a protective coating, classified in class 530, subclass 300, and class 106, subclass 124.1.

The inventions are distinct, each from the other because:

Inventions V and VI are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be

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made by another and materially different process (MPEP § 806.05(f)). In the instant case the process of making can be used to make a materially different product, e.g., a protein-based polymer which does not have at least one of the following characteristics: a mean mass of the repeating unit within the range of 300 to 10,000 daltons; a cross-link density of the matrix within the range of one cross-link per 300 dalton to no cross-links between chains (coacervate state); a water content of the matrix or coacervate within the range of 2% to 99% by weight; a hydrophobicity of the repeating unit within the T_i range of -200°C to 90°C ; and a transition temperature within the range of -200°C to 120°C . Further, the product as claimed can be made by another and materially different process, e.g., one where the charged site is present on the peptide monomeric units before they are formed into the polymer.

Invention VI and Inventions I, III, and IV are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the processes for using the product as claimed can be practiced with another materially different product, i.e. with a protein-based polymer which does not have at least one of the following characteristics: a mean mass of the repeating unit within the range of 300 to 10,000 daltons; a cross-link density of the matrix within the range of one cross-link per 300 dalton to no cross-links between chains (coacervate state); a water content of the matrix or coacervate within the range of 2% to 99% by weight; a hydrophobicity of the repeating unit within the T_i range of -200°C to 90°C ; and a transition temperature within the range of -200°C to 120°C . Further, the product of Invention VI can be used in a materially

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different process of using that product than Invention I, i.e. can be used in the methods of Inventions III or IV; the product of Invention VI can be used in a materially different process of using that product than Invention III, i.e. can be used in the methods of Inventions II or IV; and the product of Invention VI can be used in a materially different process of using that product than Invention IV, i.e. can be used in the methods of Inventions I or III.

Invention II and the Inventions I and III-VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are unrelated because of the materially different structure of polymers. The invention of Group II uses a petroleum-based polymer, which is structurally unrelated to the peptide-based polymers of Groups I and III-VI.

Inventions I, III, and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the invention of Group I results in reducing acoustical noise, sonar cross-section, or radar cross-section of a coated object; the invention of Group III results in measurement of the sound absorption capabilities of a protein-based material; and the invention of Group IV results in measurement of the microwave or radar absorption capabilities of a protein-based material. A coating method has a materially different operation, function, and effect than a measurement method, and a method of measuring sound absorption capabilities has a materially different mode of operation and effect than a method of measuring microwave or radar absorption capabilities.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II-VI; the search required for Group II is not required for Groups I or III-VI; the search required for Groups III-IV is not required for Groups I, II, V, or VI; and the search required for Group V is not required for Groups I-IV or VI; restriction for examination purposes as indicated is proper.

2. If the invention of Groups I or V is elected, a further election of species requirement is imposed as follows:

This application contains claims directed to the following patentably distinct species of the claimed invention: The patentably distinct species are the specific amino acid sequences recited in instant claims 5 and 34. These specific amino acid sequences are patentably distinct from one another because of their materially different amino acid sequences. Search of all of the specific amino acid sequences would require different sequence searches.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, 1-16 and 28-48 are generic.

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Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. If the invention of Group VI is elected, a further restriction requirement is imposed as follows:

Claims 49-52 are generic to a plurality of disclosed patentably distinct sequences comprising SEQ ID NOS:6, 8-20, and 29-44. These sequences are patentably distinct, each from the other, because of their materially different amino acid sequences. Searching all of the claimed sequences would constitute an undue burden on the examiner because different sequence searches would be required for each of the claimed sequences. Applicant is required under 35

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U.S.C. 121 to elect a single disclosed sequence, even though this requirement is traversed.

Generic claims 49, 51, and 52 will be examined with the elected sequence.

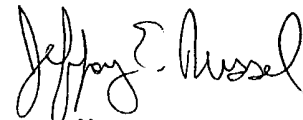
Should applicant traverse on the ground that the sequences are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the sequences to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

This is not a species election, but a holding that the sequences are patentably distinct, one from the other.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey E. Russel at telephone number (571) 272-0969. The examiner can normally be reached on Monday-Thursday from 8:30 A.M. to 6:00 P.M. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Bruce Campell can be reached at (571) 272-0974. The fax number for formal communications to be entered into the record is (703) 872-9306; for informal communications such as proposed amendments, the fax number (571) 273-0969 can be used. The telephone number for the Technology Center 1600 receptionist is (571) 272-1600.



Jeffrey E. Russel
Primary Patent Examiner
Art Unit 1654

JRussel
October 21, 2004